



This document is scheduled to be published in the Federal Register on 07/09/2013 and available online at <http://federalregister.gov/a/2013-16230>, and on FDsys.gov

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2013–0004]

[4500030113]

RIN 1018–AZ26

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Six West Texas Aquatic Invertebrates

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, designate critical habitat for the following six west Texas aquatic invertebrate species under the Endangered Species Act

of 1973, as amended: Phantom springsnail (*Pyrgulopsis texana*), Phantom tryonia (*Tryonia cheatumi*), diminutive amphipod (*Gammarus hyalleloides*), Diamond tryonia (*Pseudotryonia adamantina*), Gonzales tryonia (*Tryonia circumstriata*), and Pecos amphipod (*Gammarus pecos*). The effect of this regulation is to conserve critical habitat for the six west Texas aquatic invertebrates under the Act.

DATES: This rule becomes effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: This final rule and other supplementary information are available on the Internet at <http://www.regulations.gov> (Docket No. FWS–R2–ES–2013–0004) and also at <http://www.fws.gov/southwest/es/AustinTexas/>. These documents are also available for public inspection, by appointment, during normal business hours at: U.S. Fish and Wildlife Service, Austin Ecological Services Field Office, 10711 Burnet Road, Suite 200, Austin, TX 78758; by telephone 512–490–0057; or by facsimile 512–490–0974.

The coordinates or plot points or both from which the critical habitat maps are generated are included in the administrative record for this critical habitat designation and are available on the internet at <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0004, and from the Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and

Wildlife Service website and Field Office set out above and at

<http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Adam Zerrenner, Field Supervisor, U.S. Fish and Wildlife Service, Austin Ecological Services Field Office (see **ADDRESSES**). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

This document consists of final rules to designate critical habitat designations for six west Texas aquatic invertebrate species. The species are: Phantom springsnail (*Pyrgulopsis texana*), Phantom tryonia (*Tryonia cheatumi*), diminutive amphipod (*Gammarus hyalleloides*), Diamond tryonia (*Pseudotryonia adamantina*), Gonzales tryonia (*Tryonia circumstriata*), and Pecos amphipod (*Gammarus pecos*). The current range for the first three species is limited to spring outflows in the San Solomon Springs system near Balmorhea in Reeves and Jeff Davis Counties, Texas. The current range of the latter three species is restricted to spring outflow areas within the Diamond Y Spring system north of Fort Stockton in Pecos County, Texas.

Why we need to publish a rule. Under the Endangered Species Act (Act), any species that is determined to be a threatened or endangered species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule.

We, the U.S. Fish and Wildlife Service (Service), published final rules listing the six west Texas aquatic invertebrates as endangered **elsewhere in today's Federal Register**. On August 16, 2012, we published in the **Federal Register** a proposed critical habitat designation for these species (77 FR 49602). Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat. The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for these species.

These rules will designate critical habitat for all six of these species listed as endangered under the Act. Under the Endangered Species Act, we designate specific areas as critical habitat to foster conservation of listed species. Future actions funded, permitted, or otherwise carried out by Federal agencies will be reviewed to ensure they do not adversely modify critical habitat. Critical habitat does not affect private actions on private lands. Table 1 identifies the areas in Texas being designated as critical habitat for Phantom springsnail, Phantom tryonia, and diminutive amphipod.

Table 1.—Location, land ownership, and size of areas designated as critical habitat for Phantom springsnail, Phantom tryonia, and diminutive amphipod.

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Hectares (Acres)
San Solomon Spring, Reeves County	State—Texas Parks and Wildlife Department	1.8 (4.4)
Giffin Spring, Reeves County	Private	0.7 (1.7)
East Sandia Spring, Reeves County	Private—The Nature Conservancy	1.2 (3.0)
Phantom Lake Spring, Jeff Davis County	Federal—Bureau of Reclamation	0.02 (0.05)
Total		3.7 (9.2)

Note: Area sizes may not sum due to rounding.

Table 2 identifies the areas in Texas being designated as critical habitat for Diamond tryonia, Gonzales tryonia, and Pecos amphipod.

Table 2.—Location, land ownership, and size of areas designated as critical habitat for Diamond tryonia, Gonzales tryonia, and Pecos amphipod.

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Hectares (Acres)
Diamond Y Spring System, Pecos County	Private—The Nature Conservancy	178.6 (441.4)
Total		178.6 (441.4)

We prepared an economic analysis. To allow for consideration of the economic impacts of the final designations of critical habitat, we prepared an economic analysis of the final designations of critical habitat. We found the incremental administrative economic impacts related to consultations on the six West Texas invertebrates and their

critical habitat are expected to amount to an estimated \$41,000 over 20 years (\$3,600 on an annualized basis), assuming a discount rate of seven percent.

Peer review and public comment. We sought comments from independent specialists to ensure that our designation is based on scientifically sound data, assumptions, and analyses. We received comments from four knowledgeable individuals with scientific expertise to review our technical assumptions, analysis, and whether or not we had used the best available information. These peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in this final revised designation. We also considered all comments and information received during two comment periods.

Previous Federal Actions

Please see the proposed listing and critical habitat designations published on August 16, 2012 (77 FR 49602), for a complete discussion of the previous Federal actions for these species.

We proposed all six species be listed as endangered with critical habitat on August 16, 2012 (77 FR 49602). We also reopened the public comment on the proposed rules on February 5, 2013 (78 FR 8096).

Summary of Comments and Recommendations

In the proposed rules published on August 16, 2012 (77 FR 49602), we requested that all interested parties submit written comments on the proposals by October 15, 2012. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. We reopened the comment period on February 5, 2013 (78 FR 8096), for these proposed rules and to accept additional public comment on the draft economic analysis for the proposed designation of critical habitat. This second comment period closed on March 22, 2013. We received a request for a public hearing, and one was held on February 22, 2013, at Balmorhea State Park in Toyahvale, Texas. Newspaper notices inviting general public comment were published in the *Alpine Avalanche* and *Fort Stockton Pioneer* newspapers on February 14, 2013.

During the comment period for the proposed rule, we received 27 comments addressing the proposed listing and critical habitat for the west Texas invertebrates. During the February 22, 2013, public hearing, one individual made a comment on the proposed rules. All substantive information provided during the comment periods has either been incorporated directly into our final determinations or addressed below in our response to comments. Elsewhere in today's **Federal Register**, we have published a final rule that addresses additional comments on the listing determination for these species.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinion from five knowledgeable individuals with scientific expertise that included familiarity with the species or their habitats, biological needs, and threats. We received comments from four peer reviewers. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final rule. Information received from peer reviewers has been incorporated into our final rules, and comments are addressed in our response to comments below.

(1) Comment: The common (or vernacular) names applied to the four species of snails are not in accord with the “standardized” English names for North American mollusks as provided in Turgeon *et al.* (1988, 1998).

Our Response: We agree and have revised the common names of the four snails throughout the final rules. See “**Summary of Changes from Proposed Rule**” sections of the final rules for a list of the changes to the common names.

State Agencies

We received a number of comments from Texas State agencies, including the Texas Governor’s Office, the Texas Parks and Wildlife Department, the Texas Comptroller’s Office, the Texas Water Development Board, the Texas Commission on

Environmental Quality, the Texas Land Commission, and the Texas Department of Agriculture.

(2) Comment: The Texas Parks and Wildlife Department, while indicating they strongly encourage the use of incentive-based conservation programs for private land stewardship in Texas, indicated they had no additional information beyond what we referenced in the proposed rule and agreed that the most significant threat to the species' continued survival is the potential failure of spring flow due to unmanaged groundwater pumping thresholds, which do not consider surface flow and wildlife needs, and prolonged drought.

Our Response: We concur with the comments and information provided.

(3) Comment: The Texas Governor's office was concerned that our proposal is largely based on conflicting reports, inconclusive data, hypothetical scenarios, various assumptions and vast speculation about species populations, water quantity and quality, the effect of existing regulatory mechanisms and other potential threats. Such information fails to provide any sound scientific foundation on which to justify the listing and critical habitat designation of these species.

Our Response: Under the standards of the Act, we are to base our determinations of species status on the best available scientific information. Oftentimes, scientific data are limited, studies are conflicting, or results are seemingly inconclusive. Our review of

the best available scientific information, including both published publications and unpublished scientific reports, supports our determinations that these species meet the definition of endangered species under the Act. As such we are finalizing critical habitat designations for these species as well.

(4) Comment: One State agency and others commented that the areas proposed to be designated as critical habitat are already under Federal protection due to the presence of other listed species and private conservation protection by The Nature Conservancy; therefore, no additional restrictions on those areas are warranted.

Our Response: It is true that all of the areas where these six species occur are inhabited by other species already protected under the Act, and these listed species provide some ancillary conservation to the invertebrate species. However, the presence of other listed species has not abated the primary threat to these species from the loss of habitat due to declining spring flows. The Nature Conservancy does provide significant conservation efforts for the surface habitat of these species at Diamond Y Preserve and Sandia Springs Preserve, however, the conservation of the lands around the springs does not alleviate the threats related to groundwater and spring flow maintenance for the aquatic habitats upon which the species depend. In addition, the Act requires us to designate critical habitat for listed species if it is prudent and determinable, regardless of whether there are other species already protected in an area. We found that critical habitat is prudent and determinable for these species.

(5) Comment: A State agency commented that the use of different discount rates over the same time period should result in a range of estimated costs of critical habitat designation. The commenter notes that the costs presented at discount rates of seven and three percent in Exhibit 2-4 on page 2-10 of the Draft Economic Analysis were almost identical. Because of this, the commenter was unable to replicate the estimate costs from the information presented.

Our Response: The range of estimated costs presented in Exhibit 2-4 on page 2-10 of the Draft Economic Analysis was rounded to one significant digit, as stated in the notes to Exhibit 2-4. As a result, estimated costs discounted at a three percent discount rate appear to be similar to the estimated costs discounted at a seven percent discount rate. In the Final Economic Analysis, estimated costs are rounded to two significant figures to provide further clarity.

(6) Comment: Two State agencies and a number of others were concerned about the impacts of listing these species and designating critical habitat on private property rights, oil and gas development, and agricultural activities.

Our Response: Although the Act does not allow us to consider the economic impacts of our listing decisions, we did consider the potential economic impacts regarding the designation of critical habitat. Critical habitat only directly affects actions funded, permitted, or carried out by a Federal agency, and very limited Federal activities could affect the habitat in these areas. As a result, we found only extremely small

potential indirect effects from the proposed designation of critical habitat. For critical habitat, our economic analysis found the incremental administrative economic impacts related to consultations on the critical habitat of the six west Texas invertebrates are expected to amount to an estimated \$41,000 over 20 years (\$3,600 on an annualized basis), assuming a discount rate of seven percent.

In addition, at this time we do not anticipate noticeable impacts to private property rights, oil and gas development, or agricultural activities from either the listing or the designation of critical habitat for these species. Other listed species have been in these areas for more than 30 years with very few, if any, conflicts with economic development. However, if future conflicts arise we will work closely with the potentially affected parties to find cooperative solutions for conservation of these species while striving to minimize potential effects on economic activities.

Federal Agencies

(7) Comment: The Federal landowner of the area around Phantom Lake Spring we consider withdrawing the proposed critical habitat at Phantom in favor of a conservation agreement and strategy to implement a management plan for the species.

Our Response: The only opportunity for withdrawing the area around Phantom Lake Spring from critical habitat would be if we were to exclude the area under section 4(b)(2) of the Act. The Secretary of Interior has discretion to exclude proposed areas

from critical habitat if she finds the benefits of excluding the area outweigh the benefits of including the area. Critical habitat most clearly adds conservation benefits in cases where there is a Federal action subject to a section 7 consultation. This is always the case on Federal lands. Federal agencies have an independent obligation under section 7(a)(2) of the Act to avoid jeopardy to listed species and avoid adverse modification of their critical habitat providing potential benefits to the species. In addition, we expect that ongoing conservation efforts in this area will continue with or without critical habitat designation thereby suggesting limited benefits of excluding the area from critical habitat. Furthermore, a conservation agreement or updated management plan was not produced for us to consider a possible exclusion of this area. Therefore, we considered, but chose not to exclude Federal lands at Phantom Lake Spring from the final designation of critical habitat.

Other Public Comments

(8) *Comment:* One commenter expressed several concerns that we did not demonstrate the required determinations for the critical habitat designation at Diamond Y Spring. For example, the commenter stated that the designation of critical habitat is not prudent because there are no benefits to the species. Also, the entire proposed critical habitat area does not contain the primary constituent elements, and we did not show that they require special management. Finally, the commenter questioned whether the occurrence of the species is consistent with the proposed designation of more than 440

acres at Diamond Y Spring. For example, the proposal says the Diamond Y Spring snail (now called Diamond tryonia) is limited to the first 50 m of the outflow channel.

Our Response: We provided our assessments of prudence and determinability of the critical habitat designations in both the proposed and final rules. Critical habitat designation is prudent because it provides some limited benefits to the species. Specific benefits include: (1) triggering consultations under section 7 of the Act; (2) focusing conservation activities; (3) providing educational benefits; and (4) preventing inadvertent harm to the species. While we realize these benefits are limited due to lack of Federal activities in the area and the existing knowledge about and conservation efforts for the species, we make a prudent finding if designation would result in any benefits to the species. We found some benefits to the species from critical habitat under the three reasons listed above.

The Diamond Y Spring unit contains the physical and biological features of critical habitat and is within the geographical area occupied by all three Diamond Y species. The critical habitat boundaries of this unit were extended laterally beyond the mapped spring outflow channels to incorporate any and all small springs and seeps that may not be mapped or surveyed but would contain the physical or biological features of critical habitat. This situation is different than the other critical habitat units designated within this rule for the San Solomon Spring species. Those habitats are well-defined and exclusively contained within the confined spring outflow channels. At Diamond Y Spring, in contrast, the spring outlets are more diffuse and can be dependent on climatic

conditions where surface water may expand during wetter periods with higher groundwater levels. Under these conditions, the occupied habitat containing the physical and biological features is present outside of the defined spring outflow channels. The physical and biological features related to the water and physical environment of the springs require management (such as managing groundwater pumping, preventing contamination, preventing alterations to spring channels) to ensure the habitat continues to support the species.

Although we did closely define the confirmed distribution of the species primarily to the spring outflows, we recognize that this distribution information is based on limited data and the species may also occur in small spring seeps, some of which may not be mapped or surveyed but occur within the lateral areas included within the Diamond Y Spring critical habitat unit.

(9) Comment: The proposed critical habitat rule indicated there were no “developed areas” within the Diamond Y Spring critical habitat unit. However, there are existing oil and gas operations within the proposed area that should be considered developed areas and not included in the critical habitat designation.

Our Response: We concur and have revised the final rule to mention that developed areas, such as those used by existing oil and gas operations (e.g., roads and well pad sites) do not contain the physical and biological features and, therefore, are not

considered critical habitat even though they may occur within the critical habitat unit boundaries.

Summary of Changes from Proposed Rule

One important change we made in these final rules is the revision to the common names of the four species of snails to conform to scientifically accepted nomenclature (Turgeon *et al.* 1998, pp. 75–76). These changes were suggested by a peer reviewer of the proposed rule. Table 1 lists the names used in the proposed rules and the revised names used in the final rules. We have used the revised names of all the snails throughout these final rules. No changes were made to the scientific names.

Table 3.—Revised common names for the six west Texas invertebrates.

Scientific Name	Common Name Used in Proposed Rules	Revised Common Name Used in Final Rules
<i>Pyrgulopsis texana</i>	Phantom Cave snail	Phantom springsnail
<i>Tryonia cheatumi</i>	Phantom springsnail	Phantom tryonia
<i>Gammarus hyalleloides</i>	diminutive amphipod	No change
<i>Pseudotryonia adamantina</i>	Diamond Y Spring snail	Diamond tryonia
<i>Tryonia circumstriata</i>	Gonzales springsnail	Gonzales tryonia
<i>Gammarus pecos</i>	Pecos amphipod	No change

Other minor changes were made in the **SUPPLEMENTARY INFORMATION** section of these final rules to correct and update discussions of issues raised by peer and public commenters. No changes were made to the **50 CFR Part 17** section of the rules.

Species Background

We intend to discuss below only those topics directly relevant to the critical habitat designation for the six west Texas aquatic invertebrates. Additional background information on the biology and ecology of these species can be found in the final rule listing these species as endangered available at <http://www.regulations.gov>, Docket No. FWS–R2–ES–2012–0029.

Critical Habitat

Prudency Determination

Section 4 of the Act, as amended, and implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be an endangered species or a threatened species. Our regulations at 50 CFR 424.12(a)(1) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other activity and the identification of critical habitat can be expected to increase the degree of threat to the species; or (2) the designation of critical habitat would not be beneficial to the species.

We have no indication that the six species of west Texas invertebrates are threatened by collection, and the degree of threats to the species are not likely to increase

if critical habitat were designated. These species are not targets of collection, and the areas identified for designation either have restricted public access or are already readily open to the public (i.e., Balmorhea State Park). None of the threats identified to the species are associated with human access to the sites, with the possible exception of the potential for introducing nonnative species at San Solomon Spring in Balmorhea State Park. This threat, or any other identified threat, is not expected to increase as a result of critical habitat designation because the San Solomon Spring swimming pool is already heavily visited, Balmorhea State Park takes proactive measures to prevent introduction of nonnative species, and the designation of critical habitat will not change the situation.

In the absence of finding that the designation of critical habitat would increase threats to a species, if any benefits would result from critical habitat designation, then a prudent finding is warranted. The potential benefits of critical habitat to the six west Texas invertebrates include: (1) triggering consultation under section 7 of the Act, in new areas for actions in which there may be a Federal nexus where it would not otherwise occur, because, for example, Federal agencies were not aware of the potential impacts of an action on the species; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to any of the six species and may provide some measure of benefit, we find that designation of critical habitat is prudent for

the Phantom springsnail, Phantom tryonia, diminutive amphipod, Diamond tryonia, Gonzales tryonia, and Pecos amphipod.

Background

Critical habitat is defined in section 3 of the Act as:

- (1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features
 - (a) Essential to the conservation of the species, and
 - (b) Which may require special management considerations or protection; and
- (2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographic area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space,

food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are the elements of physical or biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographic area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographic area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and

provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in

these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features

In accordance with sections 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographic area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographic, and ecological distributions of a species.

We derive the specific physical or biological features required for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod from studies of the species' habitat, ecology, and life history as described below. We have determined that the following physical or biological features are essential for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod.

Space for Individual and Population Growth and for Normal Behavior

The aquatic environment associated with spring outflow channels and marshes provide the habitat for Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod growth and normal behavior. The areas must contain permanent flowing water to provide for the biological needs of the species. Each of the species completes all of their life-history functions in the water and cannot exist for any time outside of the aquatic environment.

Several habitat parameters of springs, such as temperature, dissolved carbon dioxide, dissolved oxygen, conductivity, substrate type, and water depth have been shown to influence the distribution and abundance of other related species of springsnails (O'Brien and Blinn 1999, pp. 231–232; Mladenka and Minshall 2001, pp. 209–211; Malcom *et al.* 2005, p. 75; Martinez and Thome 2006, pp. 12–15; Lysne *et al.* 2007, p. 650). Dissolved salts such as calcium carbonate may also be important factors because

they are essential for shell formation for the snails (Pennak 1989, p. 552). Salinity levels are also relevant, particularly at Diamond Y Spring because elevated salinity levels (3 to 6 parts per thousand (Hubbs 2001, p. 314) of dissolved salts) may prevent other more freshwater-adapted species from competing with the native species adapted to higher salinity levels.

The six invertebrates inhabit springs and spring-fed aquatic habitats with low variability in water temperatures. For example, Hubbs (2001, pp. 311–312, 314–315) reported that the spring outflow temperatures had very low variability with average readings of 20 degrees Celsius (°C) (68 degrees Fahrenheit (°F)) at Diamond Y Spring and 19 °C (66 °F) at East Sandia Spring with a range between 11 and 25 °C (52 to 77 °F). Spring measurements from 2001 to 2003 at the four springs in the San Solomon Spring complex found water temperatures ranging from 17 to 27 °C (63 to 81 °F) (Texas Water Development Board 2005, p. 38). Proximity to spring vents, where water emerges from the ground, plays a key role in the life history of the six west Texas aquatic invertebrates. For example, many springsnail species exhibit decreased abundance farther away from spring vents, presumably due to their need for stable water chemistry (Hershler 1994, p. 68; Hershler 1998, p. 11; Hershler and Sada 2002, p. 256; Martinez and Thome 2006, p. 14).

The six west Texas aquatic invertebrates are sensitive to water contamination. Hydrobiid snails as a group are considered sensitive to water quality changes, and each species is usually found within relatively narrow habitat parameters (Sada 2008, p. 59).

Taylor (1985, p. 15) suggested that an unidentified groundwater pollutant may have been responsible for reductions in abundance of Diamond tryonia in the headspring and outflow of Diamond Y Spring, although no follow-up studies have been conducted to investigate the presumption. Additionally, amphipods generally do not tolerate habitat desiccation (drying), standing water, sedimentation, or other adverse environmental conditions; they are considered very sensitive to habitat degradation (Covich and Thorpe 1991, pp. 676–677).

All six species are most commonly found in flowing water, presumably where dissolved oxygen levels are higher. The species are often found in moderate flowing water along the spring outflow margins rather than in central channels. Water depths where the species occur are generally very shallow, usually less than 1 m (3 ft) deep. An exception to this is the bottom of the San Solomon Spring pool where, because of the construction of the swimming pool, water depths are much greater, exceeding 5 m (15 ft). In San Solomon, Giffin, and Phantom Lake Springs, the habitats for the species are limited to the spring outflow channels because past alteration of the system (building of ditches) has eliminated any small spring openings. However, at Diamond Y Spring (and to a limited extent, East Sandia Spring) the spring outflows have not been severely modified so that small springs, seeps, and marshes still provide diffuse shallow flowing water habitat associated with emergent bulrush and saltgrass (Taylor 1987, p. 38; Echelle *et al.* 2001, p. 5). While these areas are more difficult to map, measure, and survey, these small springs and seeps are important habitat for the three invertebrate species at Diamond Y Spring as long as they provide flowing water.

Therefore, based on the information above, we identify permanent, flowing, unpolluted water (free from contamination) within natural temperature variations, emerging from the ground and flowing on the surface, to be a physical or biological feature necessary for these species.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Invertebrates in small spring ecosystems depend on food from two sources: that which grows in or on the substrate (aquatic and attached plants and algae) and that which falls or is blown into the system (primarily leaves). Water is also the medium necessary to provide the algae, detritus (dead or partially decayed plant materials or animals), bacteria, and submergent vegetation on which all six species depend as a food resource. Abundant sunlight is necessary to promote the growth of algae upon which all six west Texas aquatic invertebrates feed.

All four snails are presumably fine-particle feeders on detritus (organic material from decomposing organisms) and periphyton (mixture of algae and other microbes attached to submerged surfaces) associated with the substrates (mud, rocks, and vegetation) (Allan 1995, p. 83; Hershler and Sada 2002, p. 256; Lysne *et al.* 2007, p. 649). Dundee and Dundee (1969, p. 207) found diatoms (a group of single-celled algae) to be the primary component in the digestive tract of the Phantom springsnail and Phantom tryonia, indicating diatoms are a primary food source. Spring ecosystems

occupied by these snail species must support the periphyton upon which springsnails graze. Additionally, submergent vegetation contributes the necessary nutrients, detritus, and bacteria on which these species forage.

Amphipods are omnivorous, feeding on algae, submergent vegetation, and decaying organic matter (Smith 2001, p. 572). Both species of amphipod are often found in beds of submerged aquatic plants (Cole 1976, p. 80), indicating that they probably feed on a surface film of algae, diatoms, bacteria, and fungi (Smith 2001, p. 572). Young amphipods depend on microbial foods, such as algae and bacteria, associated with aquatic plants (Covich and Thorp 1991, p. 677).

Therefore, based on the information above, we identify the presence of abundant food, consisting of algae, bacteria, decaying organic material, and submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage to be a physical or biological feature for these species.

Sites for Cover or Shelter and for Breeding, Reproduction, or Rearing (or Development) of Offspring

The six west Texas aquatic invertebrates occur across a wide range of substrate types. The Phantom springsnail is most commonly attached to hard surfaces, especially large algae-covered rocks, submerged vegetation, or even concrete walls of the irrigation ditches, and found in areas of higher water velocities (Bradstreet 2011, pp. 73, 91). The

other springsnails may also be attached to hard surfaces but will also often be found in the softer substrate at the margins of the stream flows. Suitable substrates for egg laying by the snails are typically firm, characterized by cobble, gravel, sand, woody debris, and aquatic vegetation. These substrates increase productivity by providing suitable egg-laying sites for the snails.

The amphipods, in the absence of predatory fishes, will swim over any open substrate on the channel bottom, but in circumstances where fishes are abundant they may be found in greater abundance underneath large rocks, embedded in gravels, or associated with submerged vegetation. Amphipods do not lay eggs upon a surface; instead, the eggs are held within a marsupium (brood pouch) within the female's exoskeleton.

Therefore, based on the information above, we identify substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for breeding, egg laying, maturing, feeding, and escape from predators to be a physical or biological feature for these species.

Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

The Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod have a very restricted geographic distribution.

Endemic species whose populations exhibit a high degree of isolation are extremely susceptible to extinction from both random and nonrandom catastrophic natural or human-caused events. Therefore, it is essential to maintain the spring systems in which they are currently found and upon which these species depend. Adequate spring sites, free of inappropriate disturbance, must exist to promote population expansion and viability. This means protection from disturbance caused by water depletion, water contamination, springhead alteration, or nonnative species. These species must, at a minimum, sustain their current distributions if ecological representation of these species is to be ensured.

As discussed in the final listing rule, introduced species are a moderate threat to native aquatic species (Williams *et al.* 1989, p. 18; Lodge *et al.* 2000, p. 7), including the six west Texas aquatic invertebrates. The red-rim melania already competes with all six species where they occur, and the quilted melania has been introduced into habitats occupied by the San Solomon Spring species. Feral hogs cause local spring channel destruction within the Diamond Y Spring system. Because the distribution of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod is so limited, and their habitat so restricted, introduction of additional nonnative species into their habitat could be devastating.

Therefore, based on the information above, we identify either an absence of nonnative predators and competitors or nonnative predators and competitors at low population levels to be a physical or biological feature necessary for these species.

Primary Constituent Elements

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements to be the elements of physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to the Phantom springsnail, Phantom tryonia, diminutive amphipod, Diamond tryonia, Gonzales tryonia, and Pecos amphipod are springs and spring-fed aquatic systems that contain:

- a. Permanent, flowing, unpolluted water (free from contamination) emerging from the ground and flowing on the surface;
- b. Water temperatures that vary between 11 and 27 °C (52 to 81 °F) with natural seasonal and diurnal variations slightly above and below that range;

- c. Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for breeding, egg laying, maturing, feeding, and escape from predators;
- d. Abundant food, consisting of algae, bacteria, decaying organic material, and submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage; and
- e. Either an absence of nonnative predators and competitors or nonnative predators and competitors at low population levels.

With this designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species, through the identification of the appropriate quantity and spatial arrangement of the primary constituent elements sufficient to support the life-history processes of the species. All units and subunits designated as critical habitat are currently occupied by the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod and contain the primary constituent elements sufficient to support the life history needs of the species.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management

considerations or protection. The features essential to the conservation of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod may require special management considerations or protection to reduce threats, such as reducing or eliminating water in suitable or occupied habitat through drought or groundwater pumping; introducing pollutants to levels unsuitable for the species; and introducing nonnative species into the inhabited spring systems such that suitable habitat is reduced or eliminated. Special management considerations or protection are required within critical habitat areas to address these threats (for more information on the threats see **Summary of Factors Affecting the Species** in the final listing rules available at <http://www.regulations.gov>, Docket No. FWS–R2–ES–2012–0029). Management activities that could ameliorate these threats include management of groundwater levels to ensure the springs remain flowing (all spring sites), managing oil and gas activities to eliminate the threat of groundwater or surface water contamination (Diamond Y Spring), maintaining the pump within Phantom Lake Spring to ensure consistent flow, managing existing nonnative species, red-rim melania, quilted melania, and feral hogs (San Solomon, Giffin, Phantom Lake, and Diamond Y Springs), and preventing the introduction of additional nonnative species (all spring sites).

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We review available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation

at 50 CFR 424.12(e), we consider whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We are not designating any areas outside the geographic area occupied by the species because none of the historically occupied areas (or those that may have been occupied) was found to be essential for the conservation of the species (see discussion below).

We relied on information from knowledgeable biologists and recommendations contained in state wildlife resource reports (Dundee and Dundee 1969, entire; Cole and Bousfield 1970, entire; Cole 1976, entire; Cole 1985, entire; Taylor 1985, entire; Henry 1992, entire; Bowles and Arsuffi 1993, entire; Seidel *et al.* 2009, entire; Hershler *et al.* 2010, entire; Ladd 2010, entire; Allan 2011, entire; Bradstreet 2011, entire; Hershler 2011, p. 1) in making this determination. We also reviewed the available literature pertaining to habitat requirements, historic localities, and current localities for these species. This includes regional geographic information system (GIS) coverages.

Areas Occupied at the Time of Listing

For the purpose of designating critical habitat for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod, we defined the occupied area based on the most recent surveys available, which includes the Diamond Y and San Solomon Spring systems. We then evaluated whether these areas contain the primary constituent elements for the species and whether

they require special management considerations or protection. Next we considered areas historically occupied, but not currently occupied. While the west Texas aquatic invertebrates may have inhabited other springs in the area (such as Saragosa and Toyah Springs, for the San Solomon Spring species, and Leon and Comanche Springs for the Diamond Y Spring species), we only have confirmation that the Diamond tryonia and Gonzales tryonia occurred in Comanche Spring at some point in the past. We evaluated these areas to determine whether they were essential for the conservation of the species.

To determine if currently occupied areas contain the primary constituent elements, we assessed the life-history components of the species as they relate to habitat. All of the west Texas aquatic invertebrate species require unpolluted spring water in the springheads and spring outflows; periphyton and decaying organic material for food; a combination of soft and hard substrates for maturation, feeding, egg laying by snails, and escape from predators; and absence of nonnative predators and competitors (see discussion on *Physical or Biological Features*).

Areas Unoccupied at the Time of Listing

To determine if the sites that may have been historically occupied by the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod are essential for their conservation, we considered: (1) the importance of the site to the overall status of the species to prevent extinction and contribute to future recovery of each species; (2) whether the area could be restored to

contain the necessary physical or biological features to support the species; and (3) whether a population of the species could be reestablished at the site.

The Phantom springsnail, Phantom tryonia, and diminutive amphipod occur in the San Solomon Spring system, which includes San Solomon Spring, Giffin Spring, East Sandia Spring, and Phantom Spring. These species may have occurred in other springs within the system, including Saragosa, Toyah, and West Sandia Springs. These springs now lack water flow and the physical or biological features necessary to support the San Solomon Spring system invertebrates—mainly the lack of flowing water. We do not foresee these features being restorable to the point where populations of the Phantom springsnail, Phantom tryonia, and diminutive amphipod could be reestablished. These springs are not restorable because we do not foresee an opportunity for groundwater levels to rise sufficiently in the future to restore permanent spring flows because the supporting aquifers are of ancient origin and do not receive substantial modern recharge. Therefore, even if current pumping activities were to be managed for the benefit of spring flows, it is doubtful that aquifer levels would rise sufficiently to provide restoration of permanent aquatic habitat at these sites. For these reasons, we are not designating Saragosa Spring, Toyah Spring, or West Sandia Spring or any other unoccupied areas as critical habitat for the San Solomon Spring system invertebrates.

The Diamond tryonia, Gonzales tryonia, and Pecos amphipod occur in the Diamond Y Spring system. The Diamond tryonia and Gonzales tryonia historically occurred at Comanche Spring, and the Pecos amphipod may have occurred there as well.

All three species may have occurred at Leon Spring. Both Comanche Spring and Leon Spring, which have aquifer sources that may be different or more localized than that of Diamond Y Spring, are dry or nearly so and have been altered to such a degree that they no longer contain the physical or biological features necessary to support the Diamond Y Spring invertebrates—mainly the lack of flowing water. Natural flow conditions from these springs do not appear to be restorable to the point where populations of the Diamond tryonia, Gonzales tryonia, and Pecos amphipod could be reestablished. For these reasons, we are not designating Leon Spring or Comanche Spring as critical habitat for the Diamond Y Spring invertebrates.

Mapping

For the areas we are designating as critical habitat, we plotted the known occurrences of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod in springheads and spring outflows on 2010 aerial photography from U.S. Department of Agriculture, National Agriculture Imagery Program base maps using ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system (GIS) program. We drew the boundaries around the water features that make up the critical habitat in each area. Other than at San Solomon Spring and some well pads at Diamond Y Spring, no known developed areas such as buildings, paved areas, and other structures that lack the physical or biological features for the springsnail are within the critical habitat areas.

When determining critical habitat boundaries, we intended to avoid including developed areas such as lands covered by buildings, pavement, and other structures including oil and gas well pads because such lands lack physical or biological features for the species. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands within Balmorhea State Park at San Solomon Spring or at Diamond Y Spring. Any such lands left inside critical habitat boundaries shown on the maps of these rules (such as the asphalt and concrete-paved dry surfaces in Balmorhea State Park or oil and gas well pads at Diamond Y Spring) have been excluded by text in these final rules and are not designated as critical habitat. Therefore, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

Summary

We are designating critical habitat lands that we have determined are occupied at the time of listing and contain sufficient elements of physical or biological features to support life-history processes essential for the conservation of the species. Critical habitat units are designated based on sufficient elements of physical or biological features being present to support the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod life-history processes. Some units contain all of the identified elements of physical or biological features and

support multiple life-history processes. Some segments contain only some elements of the physical or biological features necessary to support the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod particular use of that habitat.

Critical Habitat Designation

We are designating four areas as critical habitat for the Phantom springsnail, Phantom tryonia, and diminutive amphipod. We are designating one area as critical habitat for the Diamond tryonia, Gonzales tryonia, and Pecos amphipod. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the species. The five areas we are designating as critical habitat are: (1) San Solomon Spring; (2) Giffin Spring; (3) East Sandia Spring; (4) Phantom Lake Spring; and (5) the Diamond Y Spring System. Phantom springsnail, Phantom tryonia, and diminutive amphipod all occur in the first 4 units and they are listed in Table 4. Diamond tryonia, Gonzales tryonia, and Pecos amphipod occur in the Diamond Y Spring Unit, and it is listed in Table 5.

Table 4.—Designated critical habitat units for Phantom springsnail, Phantom tryonia, and diminutive amphipod. Area estimates reflect all land within critical habitat unit boundaries.

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Hectares (Acres)
San Solomon Spring	State—Texas Parks and Wildlife Department	1.8 (4.4)
Giffin Spring	Private	0.7 (1.7)

East Sandia Spring	Private—The Nature Conservancy	1.2 (3.0)
Phantom Lake Spring	Federal—Bureau of Reclamation	0.02 (0.05)
Total		3.7 (9.2)

Note: Area sizes may not sum due to rounding.

Table 5.—Designated critical habitat unit for Diamond tryonia, Gonzales tryonia, and Pecos amphipod. Area estimate reflects all land within critical habitat unit boundaries.

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Hectares (Acres)
Diamond Y Spring System	Private—The Nature Conservancy	178.6 (441.4)
Total		178.6 (441.4)

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat below.

San Solomon Spring Unit

The San Solomon Spring Unit consists of 1.8 ha (4.4 ac) that is currently occupied by the Phantom springsnail, Phantom tryonia, and diminutive amphipod and contains all of the features essential to the conservation of these species. It is located in Reeves County, near Balmorhea, Texas. San Solomon Spring provides the water for the large swimming pool at Balmorhea State Park, which is owned and managed by the Texas Parks and Wildlife Department. The designation includes all springs, seeps, and outflows of San Solomon Spring, including the part of the concrete-lined pool that has a natural substrate bottom and irrigation ditch, and two constructed ciénegas. While the ditches do not provide all of the physical or biological features (such as submerged vegetation),

there are sufficient features (including natural substrates on the ditch bottoms) to provide for the life-history processes of the species. Habitat in this unit is threatened by future declining spring flows due to drought or groundwater withdrawals, the presence of nonnative snails, and the introduction of other nonnative species. Therefore, the physical or biological features in this unit may require special management considerations or protection to minimize impacts resulting from these threats.

Giffin Spring Unit

The Giffin Spring Unit consists of 0.7 ha (1.7 ac) that is currently occupied by the Phantom springsnail, Phantom tryonia, and diminutive amphipod and contains all of the features essential to the conservation of these species. It is located on private property in Reeves County, near Balmorhea, Texas, and its waters are captured in irrigation earthen channels for agricultural use. The designation includes all springs, seeps, sinkholes, and outflows of Giffin Spring. The unit contains most all of the identified physical or biological features essential to the conservation of the species. Habitat in this unit is threatened by declining spring flows due to drought or groundwater withdrawals, the presence of nonnative snails, the introduction of other nonnative species, and further modification of spring outflow channels. Therefore, the physical or biological features in this unit may require special management considerations or protection to minimize impacts resulting from these threats.

East Sandia Spring Unit

East Sandia Spring consists of 1.2 ha (3.0 ac) that is currently occupied by the Phantom springsnail, Phantom tryonia, and diminutive amphipod and contains all of the features essential to the conservation of these species. This unit is included within a preserve owned and managed by The Nature Conservancy (Karges 2003, p. 145) in Reeves County just east of Balmorhea, Texas. The designation includes the springhead itself and surrounding seeps and outflows. The unit contains all of the identified physical or biological features essential to the conservation of the species. Habitat in this unit is threatened by declining spring flows due to drought or groundwater withdrawals, the introduction of nonnative species, and modification of spring outflow channels. Therefore, the physical or biological features in this unit may require special management considerations or protection to minimize impacts resulting from these threats.

Phantom Lake Spring Unit

Phantom Lake Spring consists of a small pool about 0.02 ha (0.05 ac) in size that is currently occupied by the Phantom springsnail, Phantom tryonia, and diminutive amphipod and contains the features essential to the conservation of these species. Phantom Lake Spring is owned by the U.S. Bureau of Reclamation about 6 km (4 mi) west of Balmorhea State Park in Jeff Davis County, Texas. The designation includes only the springhead pool. The physical or biological features of the habitat at Phantom Lake Spring have been maintained since 2000 by a pumping system and subsequent reconstruction of the spring pool. Although artificially maintained, the site continues to

provide sufficient physical or biological features to provide for all the life-history processes of the three invertebrate species. Habitat in this unit is threatened by future declining spring flows due to drought or groundwater withdrawals, the presence of nonnative snails, and the introduction of other nonnative species. Therefore, the physical or biological features in this unit may require special management considerations or protection to minimize impacts resulting from these threats.

Diamond Y Spring Unit

Diamond Y Spring Unit consists of 178.6 ha (441.4 ac) that is currently occupied by the Diamond tryonia, Gonzales tryonia, and Pecos amphipod and contains all of the features essential to the conservation of these species. Diamond Y Spring and surrounding lands are owned and managed by The Nature Conservancy. The final designation includes the Diamond Y Spring and approximately 6.8 km (4.2 mi) of its outflow, including both upper and lower watercourses, ending at approximately 0.8 km (0.5 mi) downstream of the State Highway 18 bridge crossing. Also included in this unit is approximately 0.8 km (0.5 mi) of Leon Creek upstream of the confluence with Diamond Y Draw. The boundaries of this unit extend out laterally beyond the mapped spring outflow channels to incorporate any and all small springs and seeps that may not be mapped or surveyed but are expected to contain the species and the necessary physical or biological features. The unit contains all of the identified physical or biological features. Habitat in this unit is threatened by declining spring flows due to drought or groundwater withdrawals, subsurface drilling and other oil and gas activities that could

contaminate surface drainage or aquifer water, the presence of nonnative snails and feral hogs, the introduction of other nonnative species, and modification of spring outflow channels. Therefore, the physical or biological features in this unit may require special management considerations or protection to minimize impacts resulting from these threats.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5th Cir.

2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action,
- (2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
- (3) Are economically and technologically feasible, and
- (4) Would, in the Director’s opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has

retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod. As discussed above, the role of critical habitat is to support the life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod. These activities include, but are not limited to:

(1) Actions that would reduce the quantity of water flow within the spring systems designated as critical habitat.

(2) Actions that would contaminate or cause significant degradation of water quality within the spring systems designated as critical habitat, including surface drainage water or aquifer water quality.

(3) Actions that would modify the springheads or outflow channels within the spring systems designated as critical habitat.

(4) Actions that would reduce or alter the availability of aquatic substrates within the spring systems that are designated as critical habitat.

(5) Actions that would reduce the occurrence of native aquatic periphyton within the spring systems designated as critical habitat.

(6) Actions that would introduce, promote, or maintain nonnative predators and competitors within the spring systems designated as critical habitat.

Exemptions

Application of Section 4(a)(3) of the Act

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat on some Department of Defense lands. There are no Department of Defense lands within or near the critical habitat designation, so section 4(a)(3)(B)(i) of the Act does not apply.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared an analysis of the economic impacts of the proposed critical habitat designation and related factors. Potential land use sectors that may be affected by critical habitat designation include oil and gas development near the Diamond Y Spring system and agriculture (irrigated lands using groundwater withdrawals) at both spring systems. We also consider any social impacts that might occur because of the designation.

We anticipate conducting approximately 7 formal, 15 informal, and 3 technical assistance consultations considering the designation, for a total of 25 consultations, over the next 20 years. Assuming the consultations are equally likely to occur in any year, this

results in fewer than two consultations a year. As a result of our analysis of probable economic impacts, we found only small incremental impacts related to the administrative costs of these consultations from the designation of critical habitat. In total, economic impacts are expected to amount to an estimated \$41,000 over 20 years (\$3,600 on an annualized basis), assuming a discount rate of seven percent. Based on our consultation history, we estimate that most consultations are not likely to involve a third party, and therefore, fewer than two small entities, if any, could be affected each year. The probable incremental cost per entity per year is likely to range from \$260 to \$2,100. Therefore, after considering the economic impact of these designations of critical habitat, we are not excluding any critical habitat areas based on economic impacts.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense or Department of Homeland Security where a national security impact might exist. In preparing this rule, we have determined that the lands within the designation of critical habitat for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod are not owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national security. Consequently, the Secretary has not exerted her discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any habitat conservation plans or other management plans for the area, or whether any conservation partnerships would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation. We are not excluding any areas from the critical habitat designation under section 4(b)(2) of the Act.

Required Determinations

Regulatory Planning and Review—Executive Orders 12866 and 13563

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) of the Office of Management and Budget will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce

uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that the critical habitat designation for the six west Texas aquatic invertebrates

will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts on these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities. We apply the “substantial number” test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define “substantial number” or “significant economic impact.” Consequently, to assess

whether a “substantial number” of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities authorized, funded, or carried out by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the six west Texas aquatic invertebrates. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (see *Application of the “Adverse Modification Standard”* section).

In our final economic analysis of the critical habitat designation, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the designation of critical habitat for the six west Texas aquatic invertebrates. The analysis is based on the estimated impacts associated with the rulemaking as described in Chapter 2 of the analysis and evaluates the potential for economic impacts.

The analysis anticipated the Service will conduct approximately 7 formal, 15 informal, and 3 technical assistance consultations considering the designation, for a total of 25 consultations, over the next 20 years. Assuming the consultations are equally likely to occur in any year, this total results in fewer than two consultations a year. Based on the consultation history, most consultations are unlikely to involve a third party. Therefore, fewer than two small entities, if any, could be affected each year. The incremental cost per third-party entity of participating in a consultation is likely to range from \$260 to \$2,100 (see Exhibit B-1 in Appendix B of the Final Economic Analysis). This level of impact does not exceed the thresholds for significant economic effects on a substantial number of small entities.

In summary, we considered whether this designation would result in a significant economic effect on a substantial number of small entities. Based on the above reasoning and currently available information, we concluded that this rule would not result in a significant economic impact on a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for the six west Texas aquatic invertebrates will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of

Energy Effects when undertaking certain actions. The Office of Management and Budget has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute “a significant adverse effect” when compared to not taking the regulatory action under consideration.

As described in Sections 2.2, 2.5, and A.4 of the final economic analysis, the critical habitat designation for the six invertebrates is anticipated to result in minimal consultations related to natural gas pipelines. We do not anticipate incremental impacts to these projects beyond the administrative costs of addressing the adverse modification standard in section 7 consultation. Given the small number of projects affected, the designation is not anticipated to increase the cost of energy production or distribution in the United States in excess of one percent. Thus, none of the nine threshold levels of impact would be exceeded. As a result, we do not expect the designation of critical habitat to significantly affect energy supplies, distribution, or use due to the small amount of habitat we have designated and the lack of Federal activities that would be affected by the designation. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)-(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because the land in this designation is either privately owned or owned by U.S. Bureau of Reclamation or the State of Texas. None of these government entities fit the definition of “small governmental jurisdiction.” In addition, our final economic analysis, section A.2, found no enforceable duties placed upon State, local, or Tribal governments. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod in a takings implications assessment. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. The takings implications assessment found this designation of critical habitat for the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod does not pose significant takings implications for lands within or affected by the designation. Similarly, our final economic analysis, section A.3 and described in Chapter 2, concluded that the incremental effects of the designation are limited to additional administrative costs of consultation. Therefore, activities taking place on private property are not likely to be affected, and the critical habitat designation is unlikely to have takings implications.

Federalism

In accordance with Executive Order 13132 (Federalism), these rules do not have significant federalism effects. A federalism assessment is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated development of, these critical habitat designations with appropriate State resource

agencies in Texas. We received comments from several State of Texas agencies and have addressed them in the Summary of Comments and Recommendations section of this rule. The designation of critical habitat in areas currently occupied by the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have designating critical habitat in accordance with the provisions of the Act. These final rules use standard mapping technology and identify the elements of physical or biological features essential to the conservation of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod within the designated areas to assist the public in understanding the habitat needs of the species.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

These rules do not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). These rules do not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act

(NEPA; 42 U.S.C. 4321 *et seq.*), need not be prepared in connection with listing a species as endangered or threatened under the Endangered Species Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to NEPA in connection with designating critical habitat under the Endangered Species Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). The range of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod does not occur in the Tenth Circuit, so a NEPA analysis was not conducted.

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5,

1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands within or near the current or historic ranges of the Phantom springsnail, Phantom tryonia, Diamond tryonia, Gonzales tryonia, diminutive amphipod, and Pecos amphipod that contain the features essential for conservation of the species. Therefore, we are not designating critical habitat on tribal lands.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0004 and upon request from the Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Southwest Region of the Service.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245, unless otherwise noted.

2. Amend § 17.95 by:

- a. In paragraph (f), adding an entry for “Phantom springsnail (*Pyrgulopsis texana*) and Phantom tryonia (*Tryonia cheatumi*)” followed by an entry for “Diamond tryonia (*Pseudotryonia adamantina*) and Gonzales tryonia (*Tryonia circumstriata*)” after the entry for “Three Forks Springsnail (*Pyrgulopsis trivialis*)”; and

b. In paragraph (h), adding an entry for “Diminutive amphipod (*Gammarus hyallelroides*)” and an entry for “Pecos amphipod (*Gammarus pecos*)” in the same alphabetical order that these species appear in the table at § 17.11(h).

The additions read as follows.

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(f) *Clams and Snails.*

* * * * *

Phantom springsnail (*Pyrgulopsis texana*) and Phantom tryonia (*Tryonia cheatumi*)

(1) Critical habitat units are depicted for Jeff Davis County and Reeves County, Texas, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of Phantom springsnail and Phantom tryonia are springs and spring-fed aquatic systems that contain:

(i) Permanent, flowing, unpolluted water (free from contamination) emerging from the ground and flowing on the surface;

(ii) Water temperatures that vary between 11 and 27 °C (52 to 81 °F) with natural seasonal and diurnal variations slightly above and below that range;

(iii) Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for breeding, egg laying, maturing, feeding, and escape from predators;

(iv) Abundant food, consisting of algae, bacteria, decaying organic material, and submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage; and

(v) Either an absence of nonnative predators and competitors or nonnative predators and competitors at low population levels.

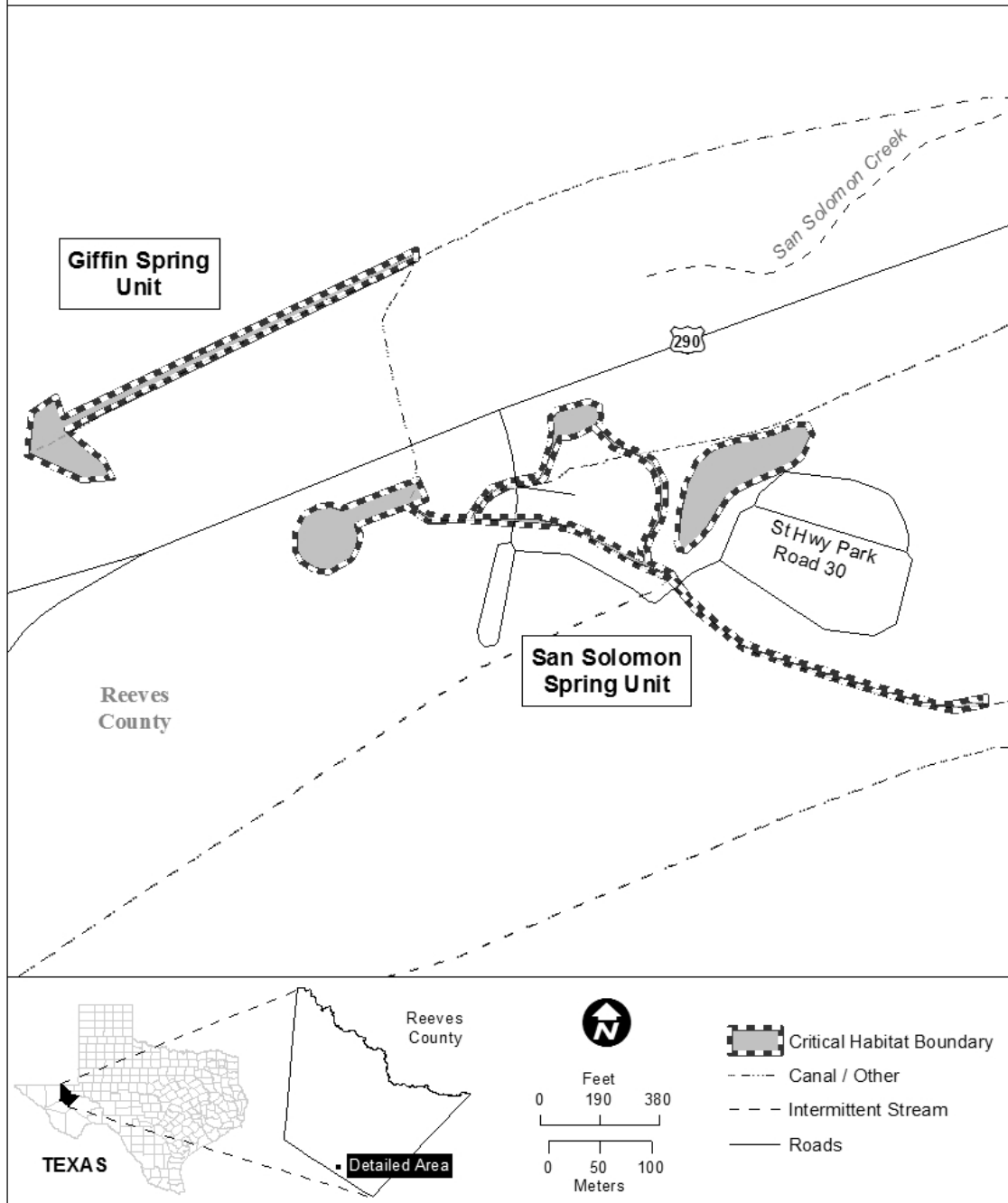
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, well pads, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(4) *Critical habitat map units.* Data layers defining map units were created on 2010 aerial photography from U.S. Department of Agriculture, National Agriculture

Imagery Program base maps using ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system (GIS) program. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available on the internet at <http://www.regulations.gov> at Docket No. FWS-R2-ES-2013-0004 and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) San Solomon Spring Unit, Reeves County, Texas. Map of San Solomon Spring Unit follows:

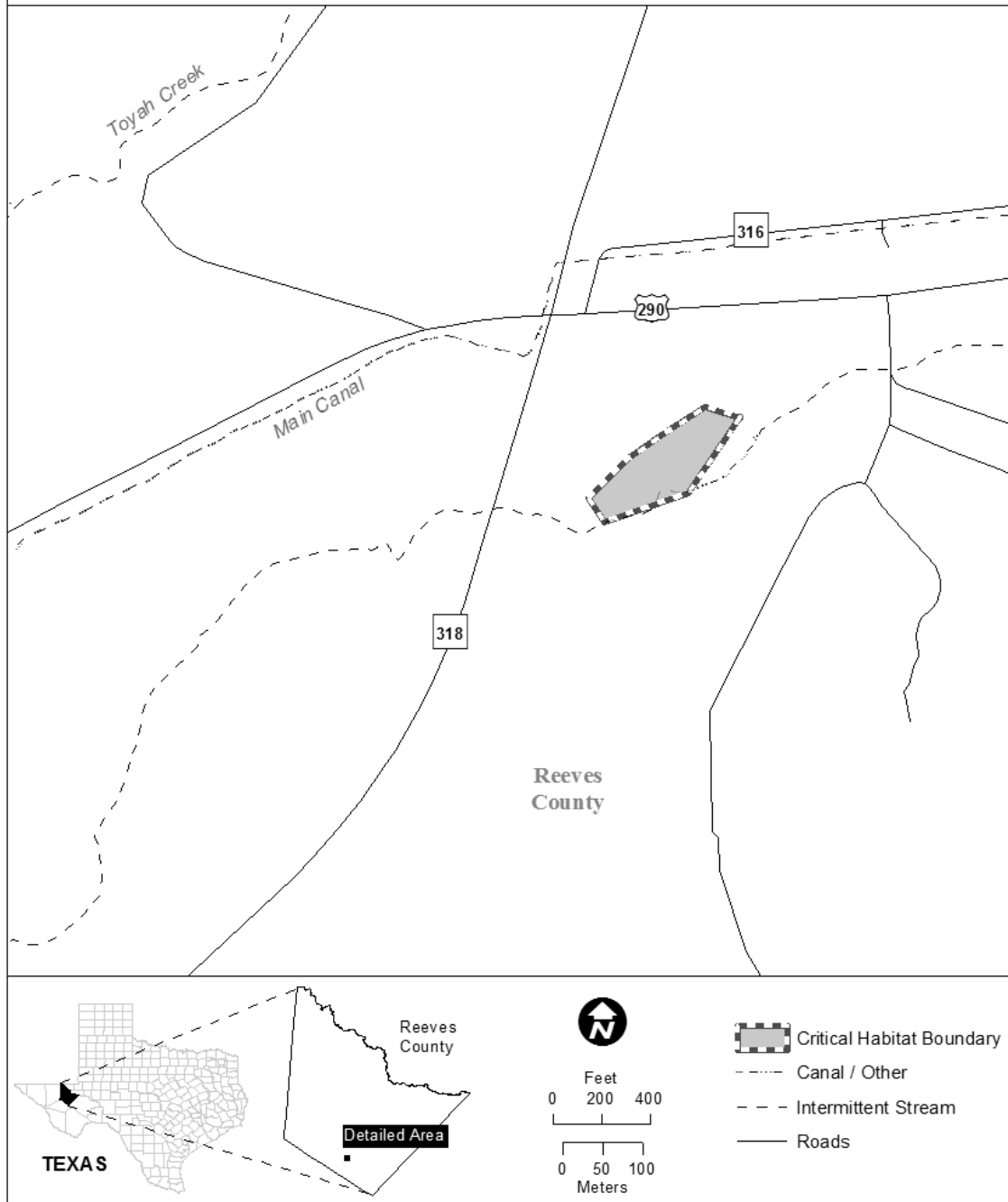
Critical Habitat for the Phantom Springsnail and Phantom Tryonia at San Solomon Spring and Giffin Spring Units



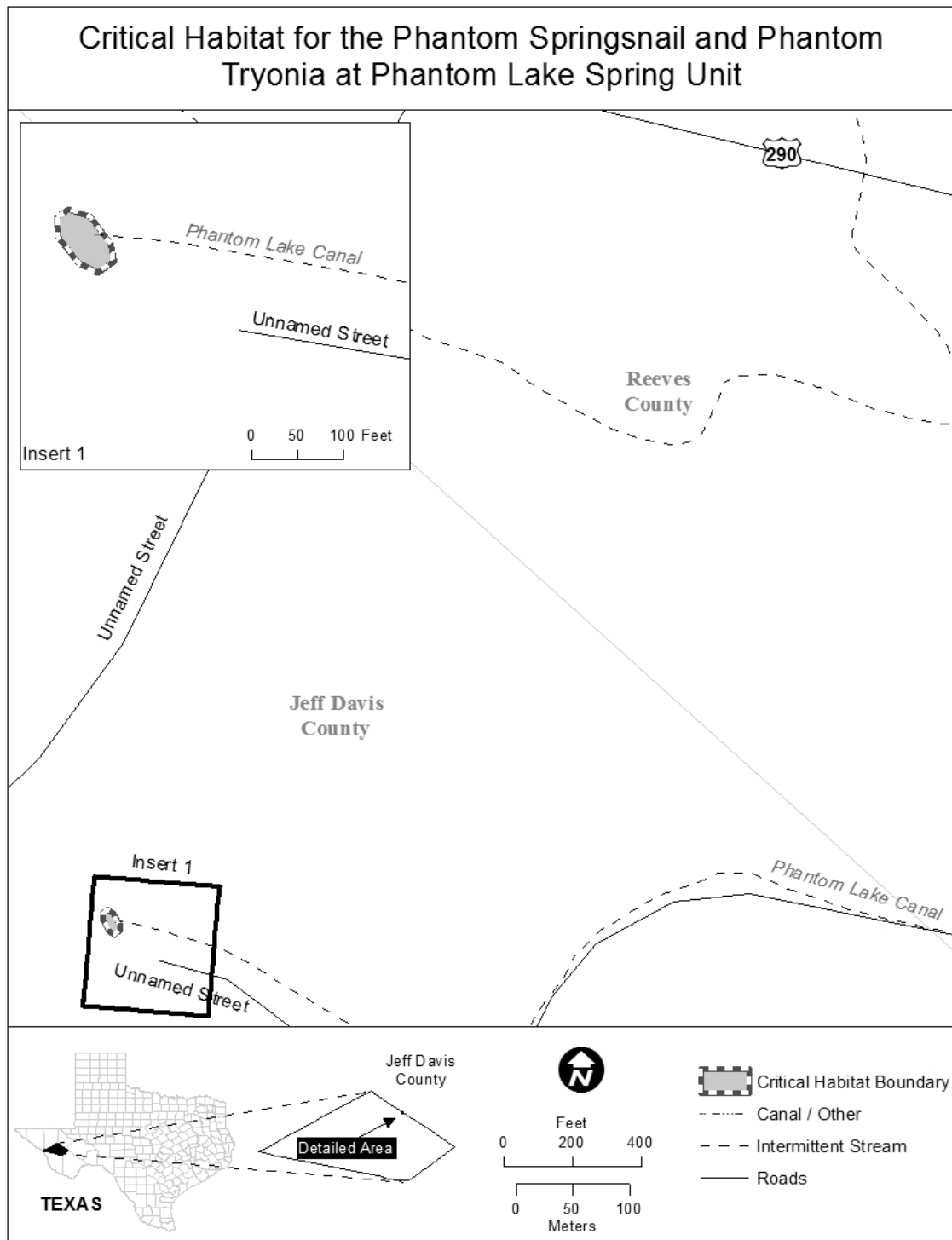
(6) Giffin Spring Unit, Reeves County, Texas. Map of Giffin Spring Unit is provided at paragraph (5) of this entry.

(7) East Sandia Spring Unit, Reeves County, Texas. Map of East Sandia Spring Unit follows:

Critical Habitat for Phantom Springsnail and Phantom Tryonia at East Sandia Spring Unit



(8) Phantom Lake Spring Unit, Jeff Davis County, Texas. Map of Phantom Lake Spring Unit follows:



Diamond tryonia (*Pseudotryonia adamantina*) and Gonzales tryonia (*Tryonia circumstriata*)

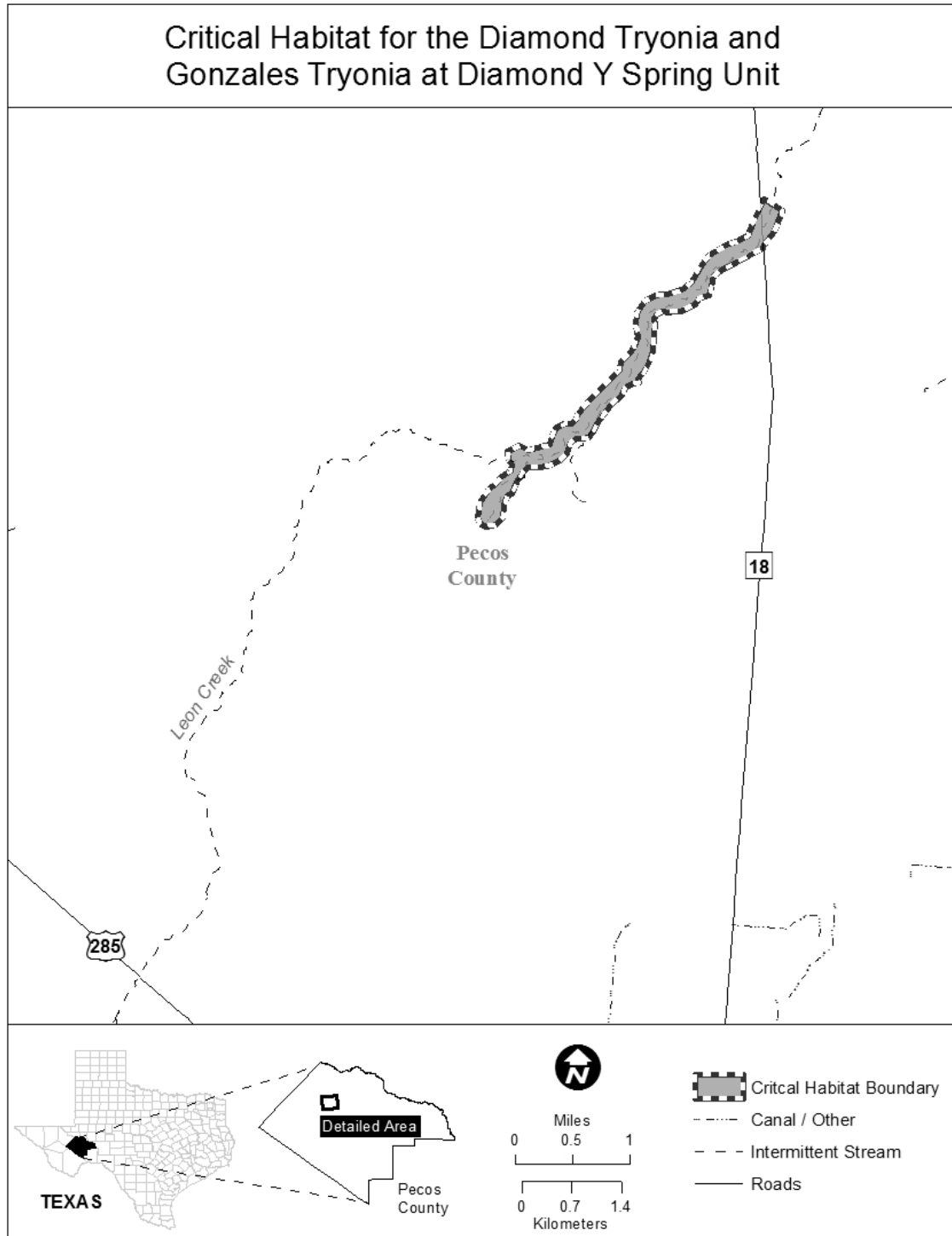
- (1) A critical habitat unit is depicted for Pecos County, Texas, on the map below.
- (2) Within this area, the primary constituent elements of the physical or biological features essential to the conservation of Diamond tryonia and Gonzales tryonia are springs and spring-fed aquatic systems that contain:
 - (i) Permanent, flowing, unpolluted water (free from contamination) emerging from the ground and flowing on the surface;
 - (ii) Water temperatures that vary between 11 and 27 °C (52 to 81 °F) with natural seasonal and diurnal variations slightly above and below that range;
 - (iii) Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for breeding, egg laying, maturing, feeding, and escape from predators;
 - (iv) Abundant food, consisting of algae, bacteria, decaying organic material, and submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage; and

(v) Either an absence of nonnative predators and competitors or nonnative predators and competitors at low population levels.

(3) Critical habitat does not include manmade structures (such as buildings, roads, oil and gas well pads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(4) *Critical habitat map unit.* Data layers defining the map unit were created on 2010 aerial photography from U.S. Department of Agriculture, National Agriculture Imagery Program base maps using ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system (GIS) program. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public on the internet at <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0004 and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Diamond Y Spring Unit, Pecos County, Texas. Map of Diamond Y Spring Unit follows:



* * * * *

(h) *Crustaceans.*

Diminutive amphipod (*Gammarus hyalleloides*)

(1) Critical habitat units are depicted for Jeff Davis County and Reeves County, Texas, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of diminutive amphipod are springs and spring-fed aquatic systems that contain:

(i) Permanent, flowing, unpolluted water (free from contamination) emerging from the ground and flowing on the surface;

(ii) Water temperatures that vary between 11 and 27 °C (52 to 81 °F) with natural seasonal and diurnal variations slightly above and below that range;

(iii) Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for breeding, maturing, feeding, and escape from predators;

(iv) Abundant food, consisting of algae, bacteria, decaying organic material, and submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage; and

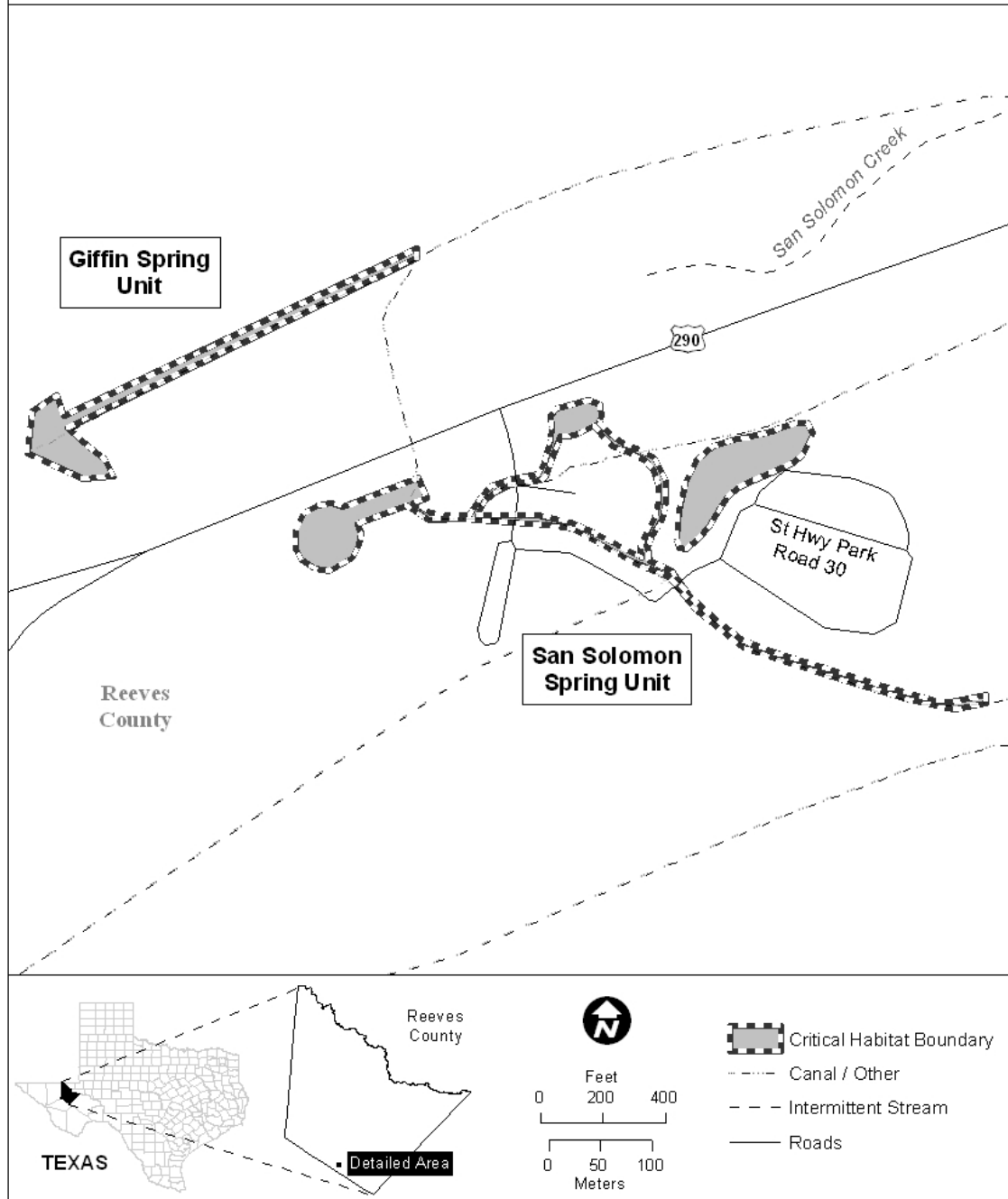
(v) Either an absence of nonnative predators and competitors or nonnative predators and competitors at low population levels.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, well pads, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(4) *Critical habitat map units.* Data layers defining map units were created on 2010 aerial photography from U.S. Department of Agriculture, National Agriculture Imagery Program base maps using ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system (GIS) program. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the on the internet at <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0004 and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

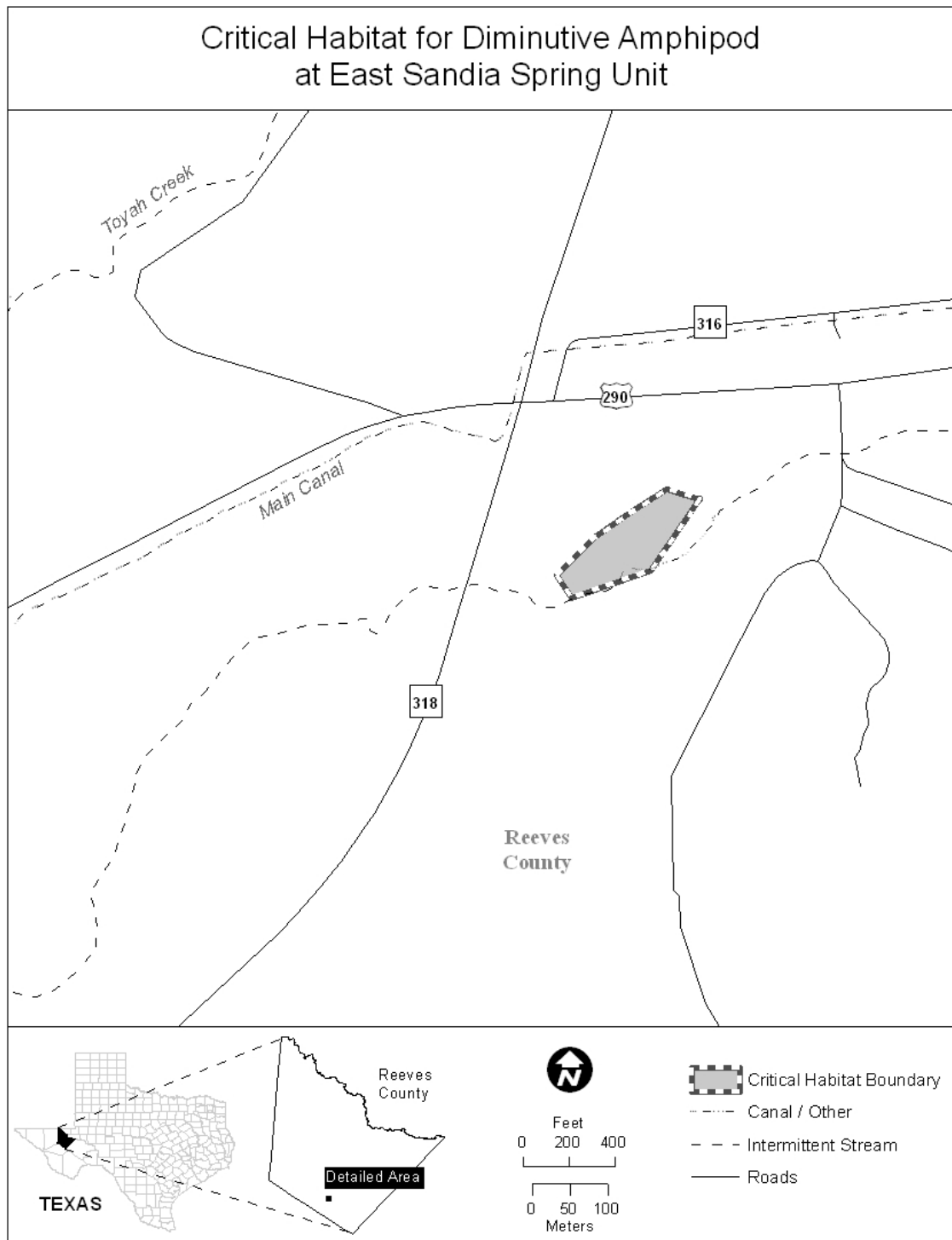
(5) San Solomon Spring Unit, Reeves County, Texas. Map of San Solomon Spring Unit follows:

Critical Habitat for the Diminutive Amphipod at San Solomon Spring and Giffin Spring Units

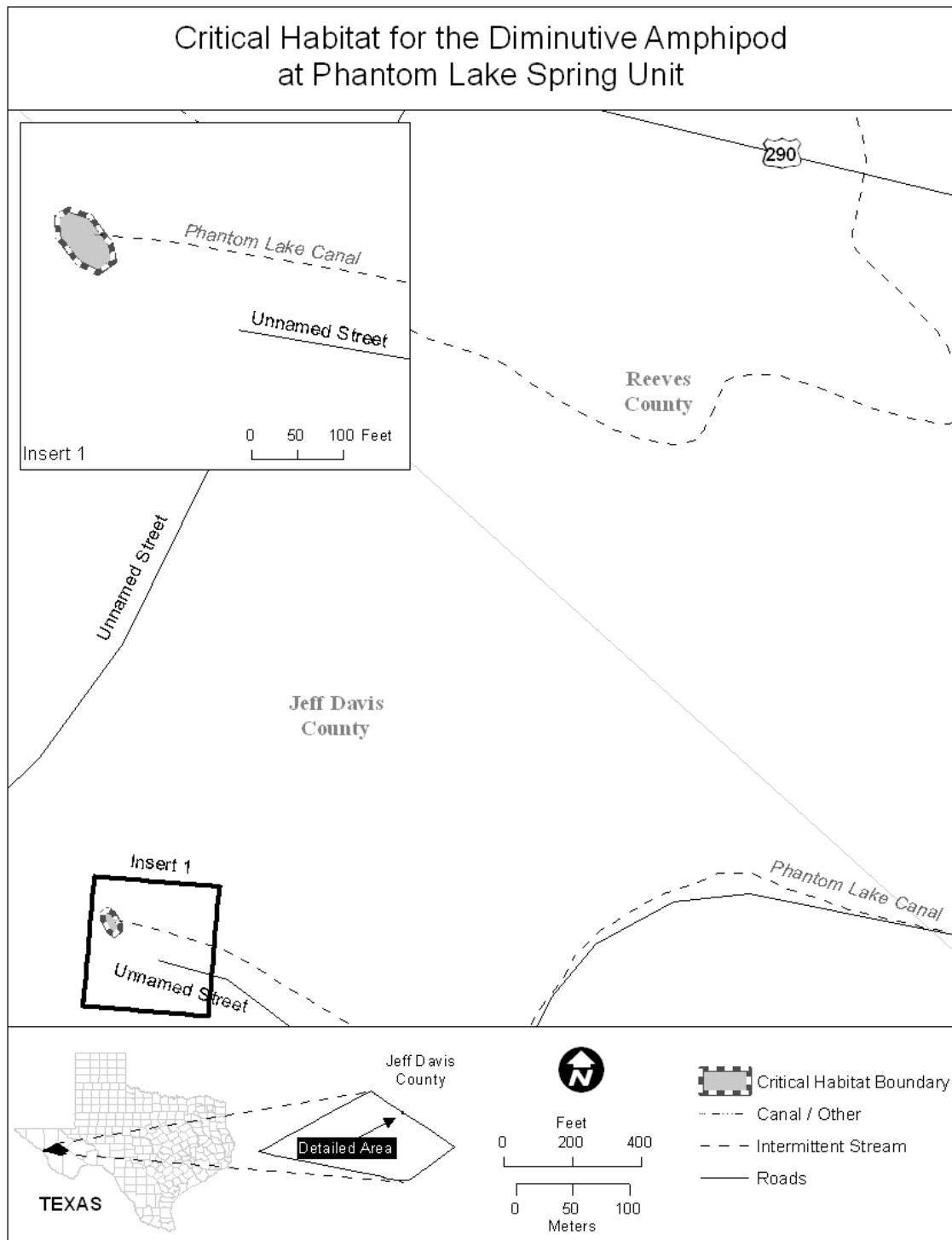


(6) Giffin Spring Unit, Reeves County, Texas. Map of Giffin Spring Unit is provided at paragraph (5) of this entry.

(7) East Sandia Spring Unit, Reeves County, Texas. Map of East Sandia Spring Unit follows:



(8) Phantom Lake Spring Unit, Jeff Davis County, Texas. Map of Phantom Lake Spring Unit follows:



* * * * *

Pecos amphipod (*Gammarus pecos*)

(1) The critical habitat unit is depicted for Pecos County, Texas, on the map below.

(2) Within this area, the primary constituent elements of the physical or biological features essential to the conservation of Pecos amphipod are springs and spring-fed aquatic systems that contain:

(i) Permanent, flowing, unpolluted water (free from contamination) emerging from the ground and flowing on the surface;

(ii) Water temperatures that vary between 11 and 27 °C (52 to 81 °F) with natural seasonal and diurnal variations slightly above and below that range;

(iii) Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for breeding, maturing, feeding, and escape from predators;

(iv) Abundant food, consisting of algae, bacteria, decaying organic material, and submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage; and

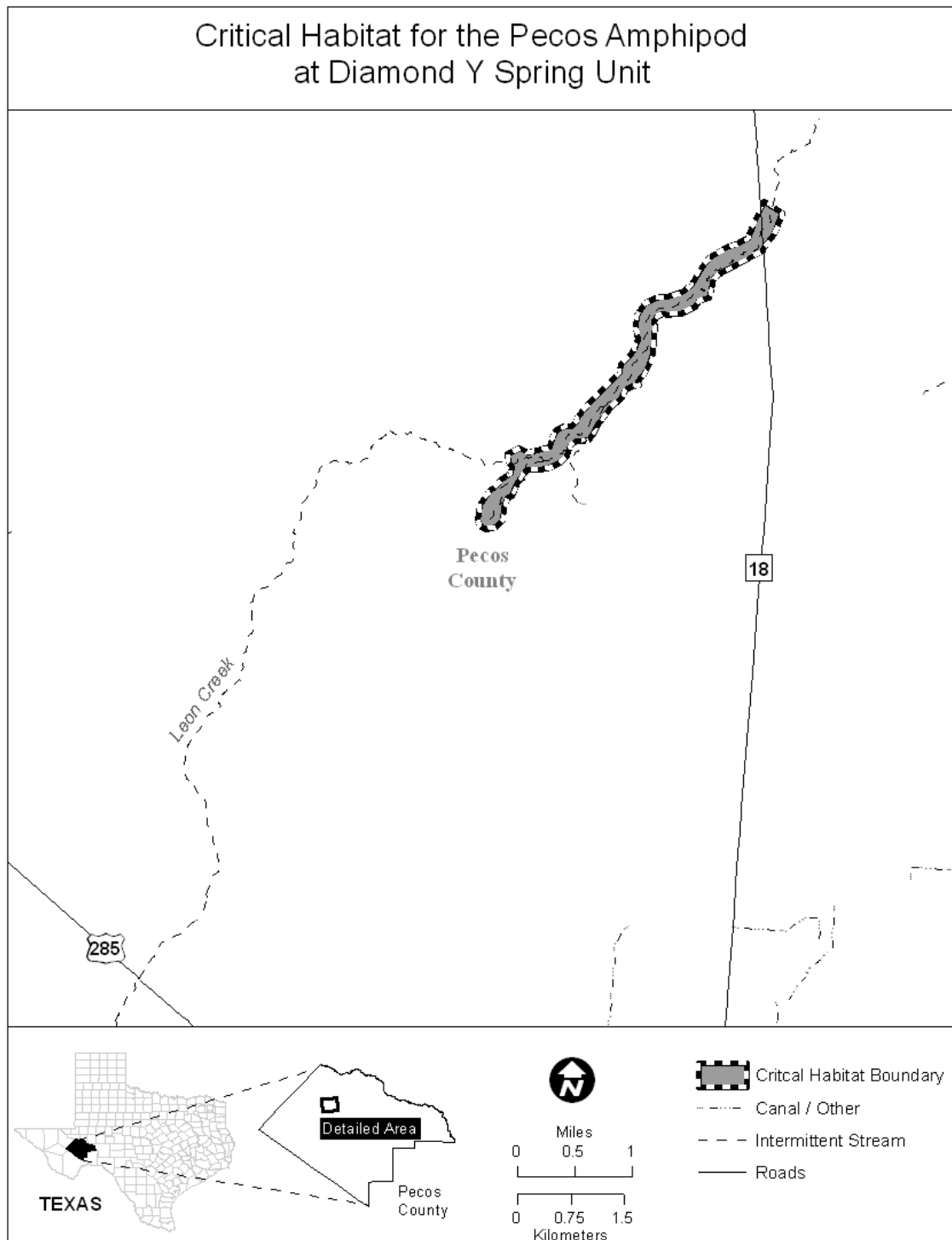
(v) Either an absence of nonnative predators and competitors or nonnative predators and competitors at low population levels.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, , oil and gas well pads, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) Critical habitat map units. Data layers defining map units were created on 2010 aerial photography from U.S. Department of Agriculture, National Agriculture Imagery Program base maps using ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system (GIS) program. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public on the internet at <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0004 and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Diamond Y Spring Unit, Pecos County, Texas. Map of Diamond Y Spring

Unit follows:



* * * * *

Dated: June 26, 2013

Rachel Jacobson

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310-55-P

~~[FR Doc. 2013-16230 Filed 07/08/2013 at 8:45 am; Publication Date: 07/09/2013]~~